

REMARKS

The Office Action dated July 17, 2007, has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

By this response, claims 25-27, 32-35, 40-45, and 48-49 have been amended, and claims 1-24, 30, 38, 46-47, 50-55, 57, 60, and 64-65 have been cancelled without prejudice or disclaimer, to more particularly point out and distinctly claim the subject matter of the invention. No new matter has been added. Support for the above amendments are provided in the Specification at least on page 18, line 24, to page 26, line 32. Accordingly, claims 25-29, 31-37, 39-45, 48-49, 56, 58-59, and 61 are currently pending in the application, of which claims 25, 32, 44-45, and 48-49 are independent claims.

In view of the above amendments and the following remarks, Applicant respectfully requests reconsideration and timely withdrawal of the pending claim rejections for the reasons discussed below.

Claim Rejections under 35 U.S.C. §102(a)

The Office Action rejected claims 25-27, 29, 31, 48, 56, and 57 under 35 U.S.C. §102(a) as allegedly anticipated by Applicants' Admitted Prior Art (U.S. Patent Publication No. 2006/0073827) ("AAPA"). Applicants respectfully submit that the claims recite subject matter that is neither disclosed nor suggested in AAPA.

Claim 25, upon which claims 26-29, 31, 56, and 58 are dependent, recites an access node for a wireless communication network. The access node includes a determining device configured to determine and transmit communication information to a subscriber terminal. The communication information includes frequency band information indicating a plurality of frequency bands where at least one access node is capable to communicate, and a frequency band coverage indicator related to at least one frequency band of neighboring access nodes of the access node in the wireless communication network. The determining device is further configured to incorporate the communication information in a signaling using a transmission of specific frames to the subscriber terminal.

Claim 48 recites a method usable in an access node entity for a decision procedure on performing a communication connection changeover of a subscriber terminal. The method includes determining communication information from at least one access node. The communication information includes frequency band information indicating a plurality of frequency bands where the at least one access node is capable to communicate, and a frequency band coverage indicator related to at least one frequency band of neighboring access nodes of the access node in the wireless communication network. The method further includes transmitting the communication information from the at least one access node to a subscriber terminal by signaling by transmitting specific frames.

As will be discussed below, AAPA fails to disclose or suggest every claim feature recited in claims 25-27, 29, 31, 48, 56, and 57, and therefore fails to provide the features discussed above.

AAPA, at page 3, lines 12-29, is directed to IEEE 802.11 standards, in particular the Medium Access Control (MAC) and the Physical Layer (PHY) protocols, of a WLAN.

Applicants respectfully submit that AAPA fails to disclose or suggest every feature recited in claims 25 and 48. Specifically, AAPA fails to disclose or suggest, at least, “a determining device configured to determine and transmit communication information to a subscriber terminal, said communication information comprising frequency band information indicating a plurality of frequency bands where at least one access node is capable to communicate, and a frequency band coverage indicator related to at least one frequency band of neighboring access nodes of the access node in the wireless communication network” as recited in claim 25, and similarly recited in claim 48 (emphasis added).

Rather, AAPA discloses the IEEE 802.11 MAC protocol gives a set of management frames including Probe Request frames which are sent by a subscriber terminal and are followed by Probe Response frames sent by an available access point to allow a subscriber terminal to scan actively if there is an access point operating on a certain channel frequency and to show to the subscriber terminal what parameter settings

this access point is using. Additionally, a MAC address is provided which is used as an identification element for the respective WLAN elements (AAPA, page 3, lines 12-29).

Hence, AAPA utilizes Probe Request and Probe Response packets to actively scan for new access points in an area. A client sends out a probe request on every channel and must wait for a possible response from an access point. This method is used by the WLAN client to gather information for handover decisions. Whereas, embodiments of the present invention deliver information to the client about neighboring access point frequencies, band coverage, etc. in specific packets (and/or beacons), reducing battery current, time and bandwidth consuming Probe Request and Probe Response packets.

Further, one of ordinary skill in the art would not have found it obvious to implement principles of cellular systems into the WLAN environment. In the case of a WLAN environment, a client is responsible for all handover decisions. Additionally, the logic used to determine who initiates measurements, information requests, storage of information, etc. is different than the logic used in cellular systems.

Accordingly, AAPA fails to disclose or suggest, at least, “a determining device configured to determine and transmit communication information to a subscriber terminal, said communication information comprising frequency band information indicating a plurality of frequency bands where at least one access node is capable to communicate, and a frequency band coverage indicator related to at least one frequency band of neighboring access nodes of the access node in the wireless communication network” as recited in claim 25, and similarly recited in claim 48 (emphasis added).

Accordingly, AAPA fails to disclose or suggest every feature recited in claim 25, and similarly recited in claim 48.

Claims 26-27, 29, 31, and 56 depend from claim 25. Claim 57 has been cancelled without prejudice or disclaimer. Accordingly, Applicants respectfully submit that claims 26-27, 29, 31, and 56 should be allowable for at least their dependency upon an allowable base claim, and for the specific limitations recited therein.

Therefore, Applicants respectfully withdrawal of the rejections of claims 25-27, 29, 31, 48, 56, and 57 under 35 U.S.C. §102(a), and respectfully submit that claims 25 and 48, and the claims that depend therefrom, are now in condition for allowance.

Claim Rejections under 35 U.S.C. §103(a)

The Office Action rejected claims 28 and 58 under 35 U.S.C. §103(a) as being allegedly unpatentable as obvious over AAPA in view of Moreton, *et al.* (U.S. Patent Publication No. 2004/0013128) (“Moreton”). Applicants respectfully submit that the claims recite subject matter that is neither disclosed nor suggested in the combination of AAPA and Moreton.

As will be discussed below, AAPA in view of Moreton fails to disclose or suggest every claim feature recited in claims 28 and 58, and therefore fails to provide the features discussed above.

AAPA was discussed above. Moreton is directed to a multi-mode access point and a method of controlling access between the access point and one or more clients (Moreton, Abstract).

As previously noted above, AAPA fails to disclose or suggest every feature recited in claim 25. Moreton fails to cure the deficiencies of AAPA. Specifically, Moreton fails to disclose or suggest, at least, “a determining device configured to determine and transmit communication information to a subscriber terminal, said communication information comprising frequency band information indicating a plurality of frequency bands where at least one access node is capable to communicate, and a frequency band coverage indicator related to at least one frequency band of neighboring access nodes of the access node in the wireless communication network” as recited in claim 25. Accordingly, AAPA in view of Moreton fails to disclose or suggest every feature recited in claim 25.

Claims 28 and 58 depend from claim 25. Accordingly, Applicants respectfully submit that claims 28 and 58 should be allowable for at least their dependency upon an allowable base claim, and for the specific limitations recited therein.

Therefore, Applicants respectfully withdrawal of the rejections of claims 28 and 58 under 35 U.S.C. §103(a), and respectfully submit that claim 25, and the claims that depend therefrom, are now in condition for allowance.

The Office Action rejected claims 1-3, 5-9, 11-15, 17-21, 23-24, 30, 32-34, 37-40, 42-45, 49-51, 53-54, 59-60, and 64 under 35 U.S.C. §103(a) as being allegedly unpatentable as obvious over AAPA in view of Raith, *et al.* (U.S. Patent No. 6,259,915) (“Raith”). Applicants respectfully submit that the claims recite subject matter that is neither disclosed nor suggested in the combination of AAPA and Raith.

Claim 44 recites a computer program embodied on a computer readable medium, that when executed by a processor, is configured to control a method. The method includes determining and transmitting communication information to a subscriber terminal. The communication information includes frequency band information indicating a plurality of frequency bands where at least one access node is capable to communicate, and a frequency band coverage indicator related to at least one frequency band of neighboring access nodes of the access node in the wireless communication network. The computer program is further configured to control a method including incorporating the communication information in a signaling using a transmission of specific frames to the subscriber terminal.

Claim 45 recites a computer program embodied on a computer readable medium, that when executed by a processor, is configured to control a method. The method includes receiving communication information transmitted from at least one access node. The communication information includes frequency band information indicating a plurality of frequency bands where the at least one access node is capable to communicate, and a frequency band coverage indicator related to at least one frequency

band of neighboring access nodes of the transmitting access node in the wireless communication network. The communication information is received from at least one access node by signaling by transmission of specific frames. The computer program is further configured to control the method includes processing the received communication information to determine in the subscriber terminal, based on the communication information, a communication connection capability of at least part of the at least one access node on the basis of the frequency band information and the frequency band coverage indicator. The method further includes deciding in the subscriber terminal on a communication connection changeover of the subscriber terminal by using a result of the processing.

Claim 49 recites a method usable in a subscriber terminal entity for a changeover decision procedure. The method includes receiving communication information from at least one access node in a wireless communication network. The communication information includes frequency band information indicating a plurality of frequency bands where the at least one access node is configured to communicate, and a frequency band coverage indicator related to at least one frequency band of neighboring access nodes of the transmitting access node in the wireless communication network. The communication information is received by signaling by transmission of specific frames. The method further includes processing the received communication information and determining based on the communication information a communication connection capability of at least part of the at least one access node on the basis of the frequency

band information and the frequency band coverage indicator. The method further includes using a processing result for a decision on a communication connection changeover of a subscriber terminal.

As will be discussed below, AAPA in view of Moreton fails to disclose or suggest every claim feature recited in claims 1-3, 5-9, 11-15, 17-21, 23-24, 30, 32-34, 37-40, 42-45, 49-51, 53-54, 59-60, and 64, and therefore fails to provide the features discussed above.

AAPA was discussed above. Raith is directed to multiple hyperband capable mobile stations and base stations. The mobile and base stations support multiple hyperband operations including, for example, mobile assisted channel allocation, mobile assisted handover, cell reselection, traffic channel assignment, and control channel location and registration. (Raith, Abstract).

For similar reasons noted above, AAPA fails to disclose or suggest every feature recited in claim 32, and similarly recited in claims 44-45 and 49. Raith fails to cure the deficiencies of AAPA. Specifically, Raith fails to disclose or suggest, at least, “a receiving portion configured to receive communication information transmitted from at least one access node, said communication information comprising frequency band information indicating a plurality of frequency bands where the at least one access node is capable to communicate, and a frequency band coverage indicator related to at least one frequency band of neighboring access nodes of the transmitting access node in the wireless communication network,” as recited in claim 32, and similarly recited in claims

44-45 and 49. Accordingly, AAPA in view of Raith fails to disclose or suggest every feature recited in claim 32, and similarly recited in claims 44-45 and 49.

Claims 33-34, 37, 39-40, 42-43, and 59 depend from claim 32. Claims 1-3, 5-9, 11-15, 17-21, 23-24, 30, 38, 50-51, 53-54, 60, and 64 were cancelled without prejudice or disclaimer. Accordingly, Applicants respectfully submit that claims 33-34, 37, 39-40, 42-43, and 59 should be allowable for at least their dependency upon an allowable base claim, and for the specific limitations recited therein.

Therefore, Applicants respectfully withdrawal of the rejections of claims 1-3, 5-9, 11-15, 17-21, 23-24, 30, 32-34, 37-40, 42-45, 49-51, 53-54, 59-60, and 64 under 35 U.S.C. §103(a), and respectfully submit that claims 32, 44-45, and 49, and the claims that depend therefrom, are now in condition for allowance.

The Office Action rejected claims 4, 10, 16, 22, 35, 36, 41, 52, 55, and 61 under 35 U.S.C. §103(a) as being allegedly unpatentable as obvious over AAPA in view of Raith, and further in view of Moreton. Applicants respectfully submit that the claims recite subject matter that is neither disclosed nor suggested in the combination of AAPA, Raith, and Moreton.

As will be discussed below, AAPA in view Raith, and further in view of Moreton, fails to disclose or suggest every claim feature recited in claims 4, 10, 16, 22, 35, 36, 41, 52, 55, and 61, and therefore fails to provide the features discussed above.

AAPA, Raith, and Moreton were discussed above. For similar reasons noted above, AAPA fails to disclose or suggest every feature recited in claim 32. Raith and Moreton, alone or in combination, fails to cure the deficiencies of AAPA. Specifically, Raith and Moreton, alone or in combination, fails to disclose or suggest, at least, “a receiving portion configured to receive communication information transmitted from at least one access node, said communication information comprising frequency band information indicating a plurality of frequency bands where the at least one access node is capable to communicate, and a frequency band coverage indicator related to at least one frequency band of neighboring access nodes of the transmitting access node in the wireless communication network,” as recited in claim 32. Accordingly, AAPA in view of Raith, and further in view of Moreton, fails to disclose or suggest every feature recited in claim 32.

Claims 35, 36, 41, and 61 depend from claim 32. Claims 4, 10, 16, 22, 52, and 55 were cancelled without prejudice or disclaimer. Accordingly, Applicants respectfully submit that claims 35, 36, 41, and 61 should be allowable for at least their dependency upon an allowable base claim, and for the specific limitations recited therein.

Therefore, Applicants respectfully withdrawal of the rejections of claims 4, 10, 16, 22, 35, 36, 41, 52, 55, and 61 under 35 U.S.C. §103(a), and respectfully submit that claim 32, and the claims that depend therefrom, are now in condition for allowance.

The Office Action rejected claim 65 under 35 U.S.C. §103(a) as being allegedly unpatentable as obvious over AAPA in view of Raith, and further in view of Dehner, *et al.* (U.S. Patent Publication No. 2003/0035464) (“Dehner”).

Claim 65 has been cancelled without prejudice or disclaimer; therefore, the rejection of claim 65 has been rendered moot.

Therefore, Applicants respectfully withdrawal of the rejection of claim 65.

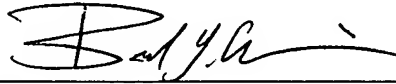
CONCLUSION

In conclusion, Applicants respectfully submit that AAPA, Moreton, Raith, and Dehner, alone or in combination, fails to disclose or suggest every feature recited in claims 25-29, 31-37, 39-45, 48-49, 56, 58-59, and 61. The distinctions previously noted are more than sufficient to render the claimed invention unanticipated and unobvious. It is therefore respectfully requested that all of claims 25-29, 31-37, 39-45, 48-49, 56, 58-59, and 61 be allowed, and this present application be passed to issuance.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, Applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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Enclosures: Petition for Extension of Time
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